

How to connect the grounding terminal of the home electrical distribution box



Article Overview

The grounding terminal of a home's electrical distribution box should be connected to the ground bus bar inside the panel, which is then linked to a grounding electrode such as a ground rod or buried metal water pipe.

Steps to Connect the Grounding Terminal

1. **Locate the Ground Bus Bar:** Open your distribution box and identify the grounding bar, often marked with "PE" (Protective Earth) or a grounding symbol. This is the designated point for all ground connections inside the panel.
2. **Connect the Power Ground Wire:** Use a copper core wire, typically yellow-green insulated, with a cross-sectional area meeting local code requirements. Strip the wire to expose the conductor, insert it into the terminal on the ground bus bar, and tighten the screw securely to ensure a firm connection.
3. **Link to the Grounding Electrode:** The ground bus bar should be connected to your home's main grounding electrode system. This can be a copper-clad steel rod driven into the earth near the foundation, a buried metal water pipe, or a concrete-encased electrode. The wire connecting the panel to the electrode is called the grounding electrode conductor (GEC).
4. **Ground Electrical Components:** If there are additional electrical components inside the distribution box that require grounding, connect them to the PE bar using copper wires. This ensures all equipment shares a common, safe ground path.
5. **Verify Continuity and Safety:** Ensure all connections are tight and free of corrosion. Use a multimeter or continuity tester to confirm that the grounding path is continuous from the panel to the electrode. Only bond the neutral and ground bars in the main service panel, not in s...

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Follow a clear step-by-step process: install the ground rod deeply, connect the grounding wire securely, attach it to the

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